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Utah Brownfields Connection

Targeted Brownfields Assessments

Outreach by the Division of Environmental Response and Remediation (DERR) in 2015 led to discussions with Green River, Salt Lake City, and Brigham City regarding potential Brownfields in their communities. The DERR also participated in discussions with the non-profit organization Centro Civico Mexicano (Centro) regarding Centro's property in downtown Salt Lake City. Based on the various discussions, the parties agreed that assessment work was necessary to help with future decision making and redevelop-



Green River - Premium Oil Site

ment planning. To move forward, Environmental Protection Agency (EPA) Targeted Brownfields Assessments (TBAs) were requested to evaluate the sites of interest.

As an example, the EPA conducted a phase I Environmental Site Assessment (ESA) and a phase II ESA on a former gas station in Green River that contained above ground storage tanks. Green River is seeking to redevelop this property into a fire station and public services facility, but cleanup work is necessary first. The phase II ESA and subsequent Cleanup/Alternatives Analysis provided by the EPA will help the city develop a plan of action moving forward.

The EPA also recently conducted phase I ESAs on the former Baron Woolen Mill and Merrell Planing Mill sites in Brigham City. Phase I ESAs were necessary prior to the city



Brigham City - Merrell Planing Mill Site

possibly taking ownership of these two properties and are also necessary should the city apply for a possible Brownfields cleanup grant(s) later this year. Phase II ESAs are currently in the queue for these properties.

A TBA can be an important tool to help communities struggling with blighted and potentially impacted property in commercial/industrial corridors and/or along "Main Street." For further information, please contact the DERR.

VCP Contaminant Spotlight: 1,4 –Dioxane

1,4-Dioxane (C₄H₈O₂, CAS No. 123-91-1) also can be identified as dioxane, dioxan, p-dioxane, diethylene dioxide, diethylene oxide, diethylene ether, or glycol ethylene ether.

1,4-Dioxane is used primarily to stabilize solvents in paints, varnishes, lacquers, cosmetics, deodorants, cleaning and detergent preparations, and in scintillating fluids. It's also used as a solvent in the processing of crude petroleum, petroleum refining, petrochemicals, pulp and paper, explosives, commercial printing, electroplating/ polishing, pesticide and agricultural manufacture, dyes, fiber manufacture, pharmaceuticals, adhesives, semiconductors, electronic components, photographic equipment, magnetic recording media, polymers, plastics, rubber manufacture, and organic and inorganic chemical manufacture. 1,4-Dioxane has often been used with chlorinated solvents, particularly 1,1,1 trichloroethane (TCA), as a stabilizer and corrosion inhibitor.

1,4-Dioxane is a cyclic ether that is highly miscible in water; in fact, it mixes with water so readily that it can be found in groundwater plumes far in advance of any solvents with which it might have entered the subsurface originally.

Sampling for 1,4-Dioxane should be conducted on VCP sites where it could be present based on site history. For further information, please see: https://clu-in.org/.

Tools to Return Property to Beneficial Use

Environmental contamination is often an impediment to economic and community development or perhaps a higher or more sustained use of property. As such, many contaminated properties or potentially contaminated properties, known as Brownfields, sit idle or underutilized due to the perceived or real threat of contamination. Brownfields include abandoned gas stations, former maintenance garages, old industrial properties and mine-scarred lands. Brownfields are present in both rural and urban communities. The following are tools available through the Division of Environmental Response and Remediation to help local governments and other stakeholders address Brownfields.

Voluntary Cleanup Program (VCP)

The Utah State Legislature passed the Voluntary Release Cleanup Program statute during the 1997 legislative session. The purpose of the VCP is to encourage the investigation and cleanup of sites where there is a suspected or confirmed contaminant release that threatens public health and the environment, creating a stigma potentially blocking economic development. Successful completion of a project under the VCP results in the applicant receiving a "Certificate of Completion," which provides a release of liability as outlined in the statute and may help clear the way for the property to be redeveloped and returned to beneficial use.

Technical Assistance and Assessments

The DERR can assist local governments and other qualified parties in applying for EPA Brownfields Assessment, Revolving Loan Fund and Cleanup (ARC) grants. These grants help fund activities such as site assessment and cleanup. The DERR can provide support letters and technical assistance for these projects. The DERR can also conduct Targeted Brownfields Assessments (TBAs) for eligible communities, governments, or non-profit groups and assist with assessments conducted by the EPA.

Enforceable Written Assurance (EWA)

The Executive Director may issue an EWA to a bona fide prospective purchaser of contaminated property. This term is defined by the Comprehensive Environmental Response, Compensation and Liability Act and incorporated in the state Hazardous Substances Mitigation Act. The Department of Environmental Quality will not bring an enforcement action under the Hazardous Substances Mitigation Act against the holder of an EWA, provided the holder continues to satisfy the ongoing obligations associated with the written assurance. The requirements for an EWA as well as the application process are outlined in R311-600 Utah Administrative Code.

For further information about these programs or to schedule a pre-application meeting, please contact the VCP/Brownfields coordinator at (801) 536-4100 or visit our web site:

http://www.superfund.utah.gov/vcp.htm

Park City Heights Voluntary Cleanup Site

The Park City Heights VCP site is located in Summit County just west of U.S Highway 40, near Kearns Boulevard. Initially, the property was thought to be undisturbed, although, upon further investigation prior to development, a surface canal and buried pipelines were identified. The canal and pipelines may have transported mine tailings across the site to the nearby Richardson Flats.

In 2012, the property was purchased by a private developer who subsequently entered into the VCP. Site characterization efforts revealed impacted soil, with lead and arsenic identified as the primary contaminants. A second canal was also identified containing impacted materials. Upon completion of the site characterization, a public comment period was conducted and a remedy was implemented to address contamination across the site. Metals-impacted soils were excavated and consolidated on the east side of the property adjacent to the frontage road and U.S. Highway 40.

Approximately 89,000 cubic yards of impacted soils were excavated and consolidated in an on-site engineered repository. The cap for the repository was designed to serve three functions: 1) provide a barrier to prevent direct contact with impacted soils, 2) establish a low maintenance system to enclose the impacted soils, and 3) minimize erosion and infiltration of water into the impacted soils. Based on site characterization and confirmation sampling, no other known areas of contamination exceeding cleanup levels were identified on the property. The soil removal was completed in 2014 and a final vegetative cover to protect the repository was established in fall 2015.

The property, with the exception of the repository area, is currently being developed for residential use. Development includes town homes and single family detached residences. This is one of the largest developments in Park City in recent years. A site management plan and environmental covenant are being finalized to manage the repository area and a final Certificate of Completion is anticipated to be issued in 2016. The VCP has been an important tool to help protect public health and the environment and to facilitate development of additional housing in the Park City area.



Removal of impacted soils



Construction of a residential subdivision

Data Quality:

Planning efforts for a Brownfields project should include factors that affect data quality, such as sampling design, sampling methods, analytical methods and quality assurance/quality control (QA/QC) protocols. To ensure that defensible quality data are collected, initial planning activities for Brownfields projects often include: 1) clarifying project and data quality objectives (DQO), 2) identifying decisions and relevant supporting data that will be necessary to support project completion, and 3) developing a conceptual site model to understand site conditions and identify key site data gaps.

Voluntary Cleanup Program Statistics:

87 VCP applications have been received and 44 Certificates of Completion have been issued since the program began in 1997. Approximately 1,000 acres have been returned to beneficial re-use.

The DERR also recently issued a No Further Action letter for phase I of the Ogden Business Exchange VCP site, helping facilitate redevelopment on this once blighted property.

Enforceable Written Assurance Statistics:

The DERR has received 97 EWA applications and issued 78 EWAs since the program began in 2006.

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Contamination Assessment at Drycleaning Sites:

The DERR often receives questions from environmental engineers and prospective purchasers regarding the best approaches to sample current and former drycleaners.

The following link: https://clu-in.org/conf/tio/dryclean_060811/ provides useful information from the State Coalition of Remediation of Drycleaners regarding this matter.

The guidance and internet seminar can be used to help identify likely areas of contamination, recognizing that each property is different and should be evaluated site-specifically.



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EPA ARC Grant Applications

Assessment, Revolving Loan Fund and Cleanup (ARC) grants, are tools to address Brownfields in Utah. The grants are competitive and Utah communities compete with other communities from across EPA Region 8 and the nation for these awards. Provo City, Duchesne County Assessment Coalition, and the non-profit organization Centro Civico Mexicano (Centro) all recently applied for EPA Brownfields grants.



Provo City applied for a Community-Wide Assessment grant to help the city assess areas of uncertainty around the former Bradshaw Auto Parts site, the Provo Central Station, and the Mountain Vista Business Park. The city is seeking to work with property owners and other stakeholders to address these properties to promote sustainable growth. The Duchesne County Assessment Coalition applied for a Community-Wide Assessment grant and plans to conduct assessment work on various properties to help remove the uncertainty associated with past industrial uses and facilitate redevelopment. Centro Civico Mexicano applied for a Cleanup grant to help the organization fund the removal of impacted soil and redevelop their property (pictured) into affordable senior housing and a civic center to serve the surrounding community. Centro has also applied to the Voluntary Cleanup Program and requested the DERR's oversight in this process.

The DERR assisted the various applicants by attending public meetings, reviewing the applications, providing technical comments and issuing letters of support. The EPA will announce the recipients of this competitive grant process in the Spring of 2016.

About Our Organization

The VCP/Brownfields Program is administered through the Division of Environmental Response and Remediation (DERR), Superfund Branch. The DERR is charged with protecting public health and Utah's environment through cleanup of chemically contaminated sites, by ensuring that underground storage tanks are used properly and by providing chemical usage and emission data to the public and local response agencies. For more information about us, please see our website.

